

Chapter 2 Properties of Matter

Section 2.3 Chemical Properties**(pages 54–58)**

This section discusses chemical properties and describes clues that may show that a chemical change has taken place.

Reading Strategy (page 54)

Relating Text and Visuals As you read, complete the table by finding examples of the clues for recognizing chemical changes in Figures 19 and 20. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Recognizing Chemical Changes	
Clue	Example
Change in color	
Production of gas	
Formation of precipitate	

Observing Chemical Properties (pages 54–55)

1. Is the following sentence true or false? The substances in paraffin do not change when a candle burns. _____
2. Circle the letters of the compounds formed when a candle burns.
 - a. paraffin
 - b. hydrogen
 - c. water
 - d. carbon
3. What is a chemical property? _____

4. Is the following sentence true or false? Flammability is a material's ability to burn in the presence of carbon dioxide. _____
5. The property that describes how readily a substance combines chemically with other substances is _____.
6. Circle the letter of each property that is a chemical property.
 - a. hardness
 - b. density
 - c. flammability
 - d. reactivity
7. Is the following sentence true or false? Nitrogen is a more reactive element than oxygen. _____

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8. Why isn't iron used to make coins? _____

9. What is the benefit of pumping nitrogen gas into seawater that is stored in steel tanks? _____

Recognizing Chemical Changes (pages 56–57)

10. A(n) _____ change occurs when a substance reacts and forms one or more new substances.

11. What are three examples of chemical changes?

- a. _____ b. _____
c. _____

12. Circle the letters of examples of evidence for a chemical change.

- a. a change in color
b. a filter trapping particles
c. the production of a gas
d. the formation of a solid precipitate

Match each example to evidence of a chemical change.

Example	Chemical Change
_____ 13. Lemon juice is added to milk.	a. the production of a gas
_____ 14. A silver bracelet darkens when exposed to air.	b. the formation of a precipitate
_____ 15. Vinegar is mixed with baking soda.	c. a change in color

Is a Change Chemical or Physical? (page 58)

16. Is the following sentence true or false? When iron is heated until it turns red, the color change shows that a chemical change has taken place. _____

17. When matter undergoes a chemical change, the composition of the matter _____.

18. When matter undergoes a chemical change, the composition of the matter _____.

19. Complete the following table about chemical changes.

Chemical Changes		
Type of Change	Are New Substances Formed?	Example
Chemical		
Physical		